**Chapter Outline**

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**16.1 Costs of Financial Distress**

- Bankruptcy risk versus bankruptcy cost.
- The possibility of bankruptcy has a negative effect on the value of the firm.
- However, it is not the risk of bankruptcy itself that lowers value.
- Rather it is the costs associated with bankruptcy.
- It is the stockholders who bear these costs.

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**16.2 Description of Costs**

**Direct Costs**
- Legal and administrative costs (tend to be a small percentage of firm value).

**Indirect Costs**
- Impaired ability to conduct business (e.g., lost sales)
- Agency Costs
  - Selfish strategy 1: Incentive to take large risks
  - Selfish strategy 2: Incentive toward underinvestment
  - Selfish Strategy 3: Milking the property

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**Protective Covenants**

- Agreements to protect bondholders
  - Negative covenant: Thou shalt not:
    - Pay dividends beyond specified amount.
    - Sell more senior debt & amount of new debt is limited.
    - Refund existing bond issue with new bonds paying lower interest rate.
    - Buy another company’s bonds.
  - Positive covenant: Thou shall:
    - Use proceeds from sale of assets for other assets.
    - Allow redemption in event of merger or spinoff.
    - Maintain good condition of assets.
    - Provide audited financial information.

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**16.4 Integration of Tax Effects and Financial Distress Costs**

- There is a trade-off between the tax advantage of debt and the costs of financial distress.
- It is difficult to express this with a precise and rigorous formula.
16.5 Signaling

- The firm’s capital structure is optimized where the marginal subsidy to debt equals the marginal cost.
- Investors view debt as a signal of firm value:
  - Firms with low anticipated profits will take on a low level of debt.
  - Firms with high anticipated profits will take on high levels of debt.
  - A manager that takes on more debt than is optimal in order to fool investors will pay the cost in the long run.

16.6 Shirking, Perquisites, and Bad Investments: The Agency Cost of Equity

- An individual will work harder for a firm if he is one of the owners than if he is one of the “hired help”.
- Who bears the burden of these agency costs?
  - While managers may have motive to partake in perquisites, they also need opportunity. Free cash flow provides this opportunity.
  - The free cash flow hypothesis says that an increase in dividends should benefit the stockholders by reducing the ability of managers to pursue wasteful activities.
  - The free cash flow hypothesis also argues that an increase in debt will reduce the ability of managers to pursue wasteful activities more effectively than dividend increases.

16.7 The Pecking-Order Theory

- Theory stating that firms prefer to issue debt rather than equity if internal finance is insufficient.
  - Rule 1: Use internal financing first.
  - Rule 2: Issue debt next, equity last.
- The pecking-order Theory is at odds with the trade-off theory:
  - There is no target D/E ratio.
  - Profitable firms use less debt.
  - Companies like financial slack.

16.10 How Firms Establish Capital Structure

- Most Corporations Have Low Debt-Asset Ratios.
- Changes in Financial Leverage Affect Firm Value:
  - Stock price increases with increases in leverage and vice-versa: this is consistent with M&M with taxes.
  - Another interpretation is that firms signal good news when they lever up.
- There are Differences in Capital Structure Across Industries:
- There is evidence that firms behave as if they had a target Debt to Equity ratio.
Factors in Target D/E Ratio

- **Taxes**
  - If corporate tax rates are higher than bondholder tax rates, there is an advantage to debt.

- **Types of Assets**
  - The costs of financial distress depend on the types of assets the firm has.

- **Uncertainty of Operating Income**
  - Even without debt, firms with uncertain operating income have high probability of experiencing financial distress.

- **Pecking Order and Financial Slack**
  - Theory stating that firms prefer to issue debt rather than equity if internal finance is insufficient.

16.11 Summary and Conclusions

- Costs of financial distress cause firms to restrain their issuance of debt.
  - Direct costs
    - Lawyers' and accountants' fees
  - Indirect Costs
    - Impaired ability to conduct business
    - Incentives to take on risky projects
    - Incentives to underinvest
    - Incentive to milk the property

- Three techniques to reduce these costs are:
  - Protective covenants
  - Repurchase of debt prior to bankruptcy
  - Consolidation of debt

Because costs of financial distress can be reduced but not eliminated, firms will not finance entirely with debt.

Debt-to-equity ratios vary across industries.

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